

apex; plate of insertion entire, rounded; valves thick; mantle covered with oblong, unequal, elongated, oblong scales.

B. *The plate of insertion of all the valves with only a single notch on each side. The valves more or less covered; the hinder valve with expanded plates of insertion (as in the central valves), with only a single notch on each side, and a concave sinuosity below.*

9. MOPALIA. Valves, exposed part broad, transverse; plates of insertion moderate; mantle spinulose; front edge sometimes expanded.

10. KATHARINA. Valves, exposed part small, cordate, as long as broad; mantle smooth.

11. CRYPTOCHITON. Valves entirely hidden; mantle covered with tufts of spicula.

II. *Mantle with a series of pores (each furnished with a tuft of spines) on each side. The plates of insertion of all the valves with only a single notch on each side, which is sometimes rudimentary.*

12. CRYPTOCONCHUS. Exposed part of valves very small, linear, much longer than broad; mantle smooth.

13. AMICULA. Exposed part of valves small, subcordate, as broad as long; mantle bristly.

14. ACANTHOCHITES. Exposed part of valves moderate, broad, cordate, as long as broad; mantle spinulose.

15. CHITONELLUS. Exposed part of valves linear-lanceolate, elongate; body vermiform; mantle spinulose.

MISCELLANEOUS.

Researches to determine the Number of Species and the Mode of Development of the British Triton. By J. HIGGINBOTTOM, Esq., F.R.C.S.

The observations of the author, of which he gives a detailed account in the present memoir, have led him to the following conclusions:—

Two species only of the genus Triton are met with in England; namely, the *Triton verrucosus* and the *Lisso-triton punctatus*. It is three years before the animal is capable of propagating its species, and four years before it attains its full growth. In its tadpole state, it remains in the water till its legs acquire sufficient strength to qualify it for progressive motion on land. While a land animal, it is in an active state during the summer, and passes the winter in a state of hybernation; but does not then, as has been erroneously supposed, remain at the bottom of pools. Very dry, or very wet situations are incompatible with the preservation of life during the period of hybernation. At the expiration of the third year, the triton revisits the water, in the spring season, for the purposes of reproduction, and again leaves it at the commencement of autumn.

Impregnation is accomplished through the medium of water, and not by actual contact. The growth and development of the triton are materially influenced by temperature, and but little by the action of light. The triton possesses the power of reproducing its lost limbs, provided the temperature be within the limits of 58° and 75° Fahrenheit; but at lower temperatures, and during the winter, it has no such power.

METEOROLOGICAL OBSERVATIONS FOR MAY 1847.

Chiswick.—May 1. Very fine. 2. Cloudy. 3. Rain. 4. Cloudy. 5. Cloudy and fine. 6. Slight fog: fine. 7. Overcast: showery. 8. Rain. 9. Fine: cloudy: densely overcast: rain. 10. Very fine: slight showers. 11. Cloudy. 12. Very fine. 13. Cloudy and fine: showers. 14. Showery. 15. Fine: rain at night. 16. Rain: cloudy: rain at night. 17. Cloudy. 18. Fine: rain. 19, 20. Cloudy and fine. 21, 22. Very fine. 23. Very hot and sultry. 24. Cloudy and fine. 25—27. Very fine. 28. Slight haze: sultry. 29. Cloudy: thunder and heavy rain. 30. Clear and fine. 31. Cloudless: exceedingly fine.

Mean temperature of the month	56°·83
Mean temperature of May 1846	56 ·16
Mean temperature of May for the last twenty years ...	55 ·01
Average amount of rain in May	1·84 inch.

Boston.—May 1. Fine. 2. Cloudy: rain early A.M.: rain P.M. 3. Cloudy: rain A.M. and P.M. 4. Cloudy. 5. Fine: rain P.M. 6. Cloudy. 7. Fine: rain P.M. 8. Cloudy: rain P.M. 9. Cloudy. 10. Cloudy: rain early A.M. 11. Rain. 12. Fine: rain, with thunder P.M. 13. Fine: rain P.M. 14, 15. Fine: rain early A.M. 16. Rain: rain, with thunder P.M. 17. Cloudy. 18. Cloudy: rain P.M. 19, 20. Cloudy. 21—24. Fine. 25. Windy. 26, 27. Fine. 28. Fine: 1 o'clock P.M. thermometer 82°. 29. Rain: 4 o'clock A.M. thunder, hail and rain: rain all night. 30. Fine: rain early A.M. 31. Fine.

Sandwich Manse, Orkney.—May 1. Bright: clear. 2. Bright: drops. 3. Bright: clear. 4. Bright: damp. 5. Fine. 6, 7. Cloudy: damp. 8, 9. Drizzle: fog. 10. Clear: fine. 11. Cloudy: rain. 12. Rain: cloudy. 13. Cloudy. 14. Rain: fog. 15. Damp: rain: fog. 16. Bright: cloudy. 17, 18. Cloudy: clear. 19. Showers: drizzle. 20. Fog: cloudy. 21. Bright: rain. 22. Showers. 23. Clear. 24. Fine. 25. Bright: cloudy. 26. Bright: showers. 27. Fine: clear. 28. Fine: cloudy: fine. 29. Rain: thunder: cloudy: fine. 30. Clear: fine. 31. Cloudy: fine.

Applegarth Manse, Dumfries-shire.—May 1. Fine summer day. 2. Mild: showers. 3. Cloudy: keen. 4. Spring, but keen. 5. Cold: wet P.M. 6. Growing: wet P.M. 7. Dull: showers. 8. Dull: wet P.M. 9. Mild: dull: wet P.M. 10. Fine growing day. 11—14. Dull: showers. 15. Fine summer day. 16. Stormy: wet all day. 17. Wet and cold. 18. Wet and stormy. 19. Dull: wet. 20. Sunshine: fine. 21. Dry: cloudy. 22. Cloudy: showers. 23. Warm: thunder: rain. 24. Fine: clear: wet P.M. 25. High wind: clear. 26. Fine: clear: light: cloudy. 27. Fine: clear: thunder. 28. Fine: wet P.M. 29. Fine: heavy rain P.M. 30. Fine: warm. 31. Remarkably fine.

Mean temperature of the month	51°·1
Mean temperature of May 1846	52 ·6
Mean temperature of May for twenty-five years	51 ·1
Mean rain in May for twenty years	1·69 inch.